

In the Claims

Please cancel claim 23 without prejudice waiver or disclaimer and add claims 36 - 39.

Please substitute the following clean copy text for the pending claims of the same number.

1 19. (Twice Amended) An apparatus for low-damage anisotropic dry etching of a substrate,  
2 comprising:  
3 a plasma reactor having a plasma creation means and adapted to have a plasma therein; and  
4 a mechanical support within said plasma reactor, said mechanical support isolated from the  
5 plasma creation means, wherein said mechanical support is electrically biased, said mechanical  
6 support imparting said electrical bias upon the substrate, whereby responsive to electrically biasing  
7 said substrate to a first electrical potential, the substrate is electrically neutralized by positive ions of  
8 the plasma, and whereby responsive to electrically biasing said substrate to a second electrical  
9 potential, the substrate is etched by electrons of the plasma.

1 36. (Newly Added) An apparatus for low-damage anisotropic dry etching of a substrate,  
2 comprising:  
3 plasma reactor having a plasma creation means, the plasma reactor adapted to have a  
4 plasma at a first electrical potential therein;  
5 mechanical support within said plasma reactor adapted to receive said substrate, wherein  
6 said mechanical support is electrically isolated from said plasma creation means;  
7 means for electrically biasing said mechanical support and said substrate placed thereon,  
8 said electrically biasing means providing a range of electrical bias to said mechanical support and  
9 said substrate placed thereon, the range of electrical bias extending from a second electrical  
10 potential less than said first electrical potential to a third electrical potential greater than said first

11 electrical potential, whereby biasing said substrate to said second electrical potential attracts positive  
12 ions from said plasma to said substrate for electrically neutralizing said substrate and biasing said  
13 substrate to said third electrical potential attracts electrons ions from said plasma to said substrate  
14 for etching said substrate.

1 37. (Newly Added) The apparatus of claim 36, wherein said electrically biasing means includes  
2 an alternating current power source.

1 38. (Newly Added) The apparatus of claim 37, wherein said alternating current power source  
generates a pulse waveform for biasing said mechanical support.

B8  
cont

1 39. (Newly Added) The apparatus of claim 37, wherein said alternating current power source  
biases the mechanical support such that ions of the plasma are attracted to the substrate and  
3 electrically neutralize the substrate without damaging the substrate.

CCD

CCD

40. (Newly Added) The apparatus of claim 36, wherein said electrically biasing means includes  
a direct current power source.

1 41. (Newly Added) The apparatus of claim 36, wherein said electrically biasing means includes  
2 an alternating current power source and a direct current power source.

1 42. (Newly Added) The apparatus of claim 36, wherein said biasing means alternates between  
3 applying to said mechanical support a fourth electrical potential ranging between the first and  
4 second electrical potentials and a fifth electrical potential ranging between the first and third  
5 electrical potentials such that at said fifth electrical potential said substrate is etched and charged by  
6 electrons of the plasma and such that at said fourth electrical potential excess electrical charge  
7 accumulated on said substrate is essentially neutralized by positive ions from the plasma adhering to  
the substrate.

---